

a memory device coupled with the processor, the memory device comprising memory storage and three different interfaces to operate the memory device in one of three different modes, where in the memory storage and the three different interfaces reside in a common packaged component.

REMARKS

Applicant submits that this Amendment presents claims in better form for consideration on appeal. Moreover, applicants submit that this Amendment responds to at least one argument that was first presented in the Office Action mailed May 17, 2002. Applicant submits that, thus, there is a good and sufficient reason why this Amendment is necessary, why this Amendment was not earlier presented, and why this Amendment should be admitted now. Furthermore, applicant believes that consideration of this Amendment could lead to favorable action that would remove one or more issues for appeal.

Office Action Summary

Claims 19-21, 23-29, 32-35, and 39-41 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,815,427 of Cloud et al. ("Cloud").

Claims 22, 30-31 and 36-38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cloud.

Status of Claims

Claims 19-41 remain pending in the application. Claims 19, 26 and 32 have been amended to more properly define the invention. The amended claims are supported by the specification, for example, at pages 6 and 10. No new

claims have been added. No new matter has been added. No claims have been cancelled.

Claim Rejections

Claims 19-21, 23-29, 32-35, and 39-41 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,815,427 of Cloud et al. ("Cloud").

Applicant respectfully submits that amended claim 19 is patentable over Cloud.

Amended Claim 19 recites:

A memory device, comprising memory storage and three different interfaces to operate the memory device in one of three different modes, wherein the memory storage and the three different interfaces reside in a common packaged component.

(emphasis added)

Cloud discloses a memory device 10 that includes a memory module 12 and an interface module 14. The interface module includes different interfaces. Memory module 12 includes an array of conventional memory cells to store data. Each of the modules is package in a separate package and is mounted to an interconnection module 16 such as a printed circuit board. (Cloud, col. 2, line 45 to col. 3, line 50). As such, the memory cells and the interfaces reside in different packaged components.

Nothing in Cloud discloses memory storage and three different interfaces residing in a common packaged component, as recited in amended claim 19. Therefore, applicants respectfully submit that amended claim 19 is patentable over the cited reference.

Given that claims 20-25 depend from claim 19, applicant submits that claims 20-25 are also patentable over the cited reference.

For reasons similar to those given above with respect to claim 19, applicant respectfully submits that claims 26-37 are patentable over Cloud.

Applicant respectfully submits that claim 39 is patentable over Cloud.

Claim 39 recites:

A method, comprising:
selecting an interface from among at least a programming interface and a **test interface** in a memory device; and
operating the memory device with the selected interface.

(emphasis added)

Cloud discloses an interface module 14 that is configurable to provide a selected one of a number of different interfaces. Interface module 14 includes an I/O select circuit 55. Cloud discloses that the interfaces are used to program circuit 55. (Cloud, col. 5, lines 56-58).

The Office Action states:

Regarding claim 39, Cloud et al. teaches that selecting an interface from among at least a programming interface and a test interface in a memory device; and operating the memory device with the selected interface (Fig. And 6, col.5, lines 18 to col. 6, lines 47).

(Office Action, 5/17/2002, page 4).

Applicant respectfully disagrees with the Office Action's characterization of Cloud. Nothing in Cloud discloses selecting a **test interface** in the passages cited by the Office Action. Applicants respectfully request the Examiner to more specifically quote the passages of Cloud that the Office Action purports to disclose a test interface if the Examiner is in disagreement on this point.

In contrast, claim 39 recites "selecting an interface from among at least a programming interface and a test interface in a memory device." Therefore, applicant respectfully submits that claim 39 is patentable over Cloud.

Given that claims 40-41 depend from claim 39, applicant submits that claims 40-41 are also patentable over Cloud.

Claims 22, 30-31 and 36-38 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Cloud. Applicant respectfully submits that claims 22, 30-31 and 36-37 are dependent claims that include the limitations of their respective independent claim from which they depend. Therefore, applicant submits for the reasons stated above that such claims are patentable over the cited reference.

Applicant respectfully submits that claim 38 is patentable over the cited reference.

Claim 38 recites:

A memory device, comprising a plurality of different interfaces to operate the memory device in a plurality of different modes, wherein the memory device is a **flash memory** and wherein one of the plurality of interfaces is a standard flash memory interface.

(emphasis added)

Cloud does not teach a memory device being a flash memory. Applicant believes the Examiner to be in agreement on this point. (Office Action, 5/17/2002, page 5). Cloud discloses that memory device 10 may be an SDRAM and DRAM (Cloud, col. 4, line 17 and col. 6, line 5). In addition, one of the problems confronting the inventors of Cloud, and advantages of the teachings of Cloud, is cost effectiveness. (Cloud, col. 2, lines 1-16). The types of memory

devices that Cloud discloses are inexpensive volatile memory devices that lose their stored data when power to the memory is removed.

In contrast, claim 38 is directed to a flash memory device. Nothing in Cloud teaches or suggests the use of a flash memory. A flash memory device is a non-volatile memory device that retains the contents of data stored within it even after power to the memory is removed. Such a technological feature tends to make flash memory more expensive than volatile memory devices such as the SDRAM and DRAM devices taught by Cloud. As such, one of skill in the art would not be motivated to look to flash memory devices for solutions to the problems facing the inventors of Cloud due the cost prohibition of flash memory devices in achieving a cost effective solution as required by Cloud. As such, it would not be obvious to combine a flash memory with the teachings of Cloud. Therefore, applicant respectfully submits that claim 38 is patentable over Cloud.

In conclusion, applicant respectfully submits that in view of the arguments and amendments set forth herein, the applicable rejections have been overcome.


If the Examiner believes a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Daniel Ovanezian at (408) 720-8300.

If there are any additional charges, please charge our Deposit Account No.
02-2666.

Respectfully submitted,

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Dated: 8/12, 2002


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

A marked up version of the amended claims is provided below.

Additions are indicated with “__” and deletions are indicated within “[].”

19. (Twice Amended) A memory device, comprising memory storage and
three different interfaces to operate the memory device in one of three different
modes, wherein the memory storage and the three different interfaces reside in a
common packaged component.

26. (Twice Amended) A component board, comprising:
a processor; and
a memory device coupled with the processor, the memory device
comprising memory storage and three different interfaces to operate the memory
device in one of three different modes, where in the memory storage and the
three different interfaces reside in a common packaged component.

32. (Twice Amended) A computer system, comprising:
a peripheral device; and
a system board coupled to the peripheral device, the system board
comprising:
a processor; and

a memory device coupled with the processor, the memory device comprising memory storage and three different interfaces to operate the memory device in one of three different modes, where in the memory storage and the three different interfaces reside in a common packaged component.